

## REMARKS

Claim 24 is currently amended as suggested by Examiner Winakur. Claims 9-32 are currently pending. Reconsideration of the application in view of the current claims is respectfully requested and further in view of the following Remarks.

### **I. INFORMATION DISCLOSURE STATEMENT**

Applicant acknowledges, with appreciation, the Examiner's indication that the references submitted in the Information Disclosure Statement filed June 12, 2007, and in the Information Disclosure Statement filed September 24, 2007, have been considered.

### **II. INTERVIEW SUMMARY**

Applicant thanks Examiner Winakur and Examiner Bor for the interview conducted Monday, September 8, 2008, with Applicant's representatives Esther Kepplinger and Kristin Havranek, during which the rejections and the reference cited against the claims were discussed. The Examiners' comments were helpful in forming this Office Action Response.

As requested by Examiner Winakur during the Interview, claim 24 has been amended to clarify that it compares 'relative motion to a range of motion of skeletal structures of a normal population of people.' Applicant respectfully asserts that all claims are patentable over the references cited in the Office Action.

### **III. STATUS OF RELATED CASES**

This application shares the same disclosure with the following application(s) whose status is:

Application Biblio • Appln # • Pub # • Patent #	Date • Appln Date • Pub Date • Issue Date	Examiner	Status
11/972,573	01/01/2008	Unassigned, art unit 3736	TSS Review complete.
US 2008/0125678	05/29/2008		Claims directed to apparatuses and methods for measuring skeletal joint motion.
EP 03738330.4	07/08/2003		European patent issued; copy provided to Examiner with IDS filed June 12, 2007.
WO 2004/00470	01/15/2004		
EP 1519681 B1	11/29/2006		

Additionally, other applications, and their status, that may be of interest to the Examiner in evaluating this application include, for example:

Application Biblio • Appln # • Pub # • Patent #	Date • Appln Date • Pub Date • Issue Date	Examiner	Status
11/734,623	04/12/2007	Unknown	TSS Review complete
US 2007/0287900	12/13/2007		Claims directed to devices, systems and methods for measuring and evaluating the motion and function of joint structures and associated muscles, determining suitability for orthopedic intervention, and evaluating efficacy of orthopedic intervention
12/247,552	10/08/2008	Unknown	TSS in process
			Claims directed devices, systems and methods for measuring and evaluating the motion and function of joints and associated muscles

#### **IV. DECLARATION UNDER 37 C.F.R. § 1.131**

The Examiner has stated that Schindler '387 discloses a "use of continuous passive movement to continuously guide a patient through a range of motion for function imaging in order to view the full range of the physiologically visual scope of patient being examined," (Office Action dated July 10, 2008, p. 3) and concluded that claim 9 is obvious under Votruba '859 in view of Bejjani '042 and further in view of Schindler '387. Although Applicant disagrees that Schindler '387 discloses this element of claim 9, in an effort to advance prosecution Applicant submits a Declaration under 37 C.F.R. § 1.131 establishing an invention date prior to the effective date of Schindler '387 reference. The Declaration removes Schindler '387 as an available reference against Applicant's claims. Thus, claim 9 is allowable over Schindler '387. Accordingly, Applicant requests that the Examiner withdraw the rejection of claim 9, withdraw the rejections of all claims which depend directly or indirectly from claim 9 (claims 10-14), and withdraw the rejections of all claims which include all of the elements of claim 9 (claims 15-32).

#### **V. DECLARATION UNDER 37 C.F.R. § 1.132**

In view of the submission of the Declaration under § 1.131 and the submission of the article that resulted from Applicant's research that led to this invention, Applicant also submits a

Declaration under 37 C.F.R. § 1.132 supporting sole inventorship by Alan Breen of all of the claims in the present application, originally filed as **PCT/GB2003/002934** on July 8, 2003, claiming priority to **GB 0215848.3** filed July 9, 2002, and to **GB 0226264.0** filed November 11, 2002, and supporting sole inventorship of the subject matter described and claimed therein.

**VI. CLAIM REJECTION UNDER 35 U.S.C. § 103(A)**

During patent examination the PTO bears the initial burden of supporting a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, it is necessary for the Examiner to present evidence, preferably in the form of some teaching, suggestion, incentive or inference in the applied prior art, or in the form of generally available knowledge, that one having ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention. Mere identification in the prior art of each element is insufficient to defeat patentability of the combined subject matter. There must also be some suggestion or motivation to modify the reference or to combine reference teachings. *See* MPEP § 2142. Thus, there must be some positive, concrete evidence which gives a logical reasoning which justifies a combination of references. Further, Applicant's explanation of how the invention works does not render obvious that which is otherwise unobvious. Finally, there must be a reasonable expectation of success and the references must teach or suggest all of the claim limitations.

In practice, this requires that the Examiner explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. Further, the factual inquiry of whether to combine references must be based on the objective evidence of record. Failure to meet that burden is a basis for the Board to overturn the obviousness rejection. The Examiner cannot simply use Applicant's teaching to show that a person of ordinary skill would have been led to the combination of references. Similarly, the Examiner cannot provide conclusory statements supporting the rejection. As the Federal Circuit has noted the motivation-suggestion-teaching requirement protects against the entry of hindsight into the obviousness analysis.

**A. Claims 9 and 11-12 have been rejected under 35 U.S.C. § 103(a) over Votruba '859 in view of Bejjani '042 and in further view of Schindler '387**

The Examiner rejected claims 9 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Votruba '859<sup>1</sup> in view of Bejjani '042 and in further view of Schindler '387. As noted above, the Declaration submitted by the Applicant under 37 C.F.R. § 1.131 removes Schindler '387, as a reference available under § 103. In view of the Examiner's acknowledgement in the Office Action that the prior rejection in view of Votruba '859 and Bejjani '042 had been overcome, and Schindler '387 is not available as a reference, claim 9 and claims dependent therefrom, including claims 11-12, are allowable.

It is worth noting that Applicant's claimed invention results in unexpected advantages—i.e. more than would be expected from the combination of references Votruba '859, Bejjani '042, and Schindler '387. Using a passive motion device with time code data recorded along with controlled (passive) movement and position data at each sampling of the moving joints, provides (for example) the ability to analyze accurately the range of motion of a joint, including improvements before and after treatment, and comparisons to range of motion in a "control" joint from a normal person or normal population. This is because, for example, the time code and data recordings allow more information to be collected at each sampling and, thus, more analysis to be achieved than is expected from Votruba '859, Bejjani '042, and Schindler '387 where no time code or data is taken during continuous passive motion of the joint. Nothing in any of the cited references suggests this advantage. Thus, notwithstanding the fact that Schindler '387 is not an available reference and Applicant has already overcome the combination of Votruba '859 and Bejjani '042, Applicant's claims are non-obvious to a person having skill in the art if presented with the cited references because of these unexpected results.

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<sup>1</sup> The Examiner cited U.S. Patent 5,899,856, but Applicant notes that the correct Patent Number is 5,899,859.

To facilitate the Examiner's appreciation of the differences between a few of the elements of the claimed invention and the prior art, Applicant summarizes the information as follows:

ELEMENT	BREEN	VOTRUBA '859	BEJJANI '042	SCHINDLER '387
Means for recording time code and data from the passive motion platform during continuous movement of the passive motion platform	YES	NO	NO	NO
Real time digital sampling of moving images	YES	NO	NO	NO

Accordingly, Applicant requests that the Examiner withdraw the rejection of claim 9 over Votruba '859 in view of Bejjani '042 and in further view of Schindler '387 under 35 U.S.C. § 103(a). Claims 11-12 depend directly or indirectly from claim 9 and include the limitations thereof. Accordingly, for the same reasons Applicant requests that the rejection of claims 11-12 be withdrawn as well.

**B. Claims 10 and 13-14 have been rejected under 35 U.S.C. § 103(a) over Votruba '859 in view of Schindler '387 in view of Bejjani '042 and further in view of Bell '**

The Examiner rejected claims 10 and 13-14 under 35 U.S.C. § 103(a) as being unpatentable over Votruba '859 in view of Schindler '387 in view of Bejjani '042 and further in view of Bell '859. Claims 10 and 13-14 depend directly or indirectly from claim 9 and include the limitations thereof. As noted above, the Declaration submitted by the Applicant under 37 C.F.R. § 1.131 removes Schindler '387 as an available reference. Thus, claim 9 and claims dependent therefrom, including claims 10, 13-14, are allowable.

**C. Claims 15- 32 have been rejected under 35 U.S.C. § 103(a) over Votruba '859 in view of Bejjani '042, in view of Bell '859**

The Examiner rejected claims 15-32 under 35 U.S.C. § 103(a) as being unpatentable over Votruba '859 in view of Bejjani '042, in view of Bell '859. In the Examiner's Response to Arguments, the Examiner states:

The Examiner in the interest of speeding the prosecution of the case would like to point out that independent claim 15 does not include any language directed to "continuous motion" or "during sampling of images."

Office Action dated July 10, 2008, pp 10.

Applicant respectfully traverses this rejection. Claim 15 comprises “positioning a subject on the passive motion device as defined in claim 9.” Thus, the device that is used in claim 15 includes all of the elements of claim 9, which includes “a passive motion device for continuously moving a joint which comprises a horizontal platform base and a horizontal passive motion platform composed of . . . a horizontal laterally movable platform . . . in which the movement of the lateral movable platform is continuously driven during sampling of images . . .” (Claim 9). Claims 16-32 depend directly or indirectly from claim 15, and include the limitations thereof, including the limitations of the device of claim 9. As discussed above, claim 9 is not obvious over Votruba ‘859 in view of Bejjani ‘042. Also as discussed above, Bell ‘859 does not disclose a device providing continuous motion of a laterally movable platform during sampling of images and continuous motion of the joint during sampling of images. Nor does Bell ‘859 disclose an apparatus including a processing system which records time code and data from a passive motion platform. Applicant request that the rejection of claims 15-32 be withdrawn.

**D. Claims 21, 23, 30 and 32 have been rejected under 35 U.S.C. § 103(a) over Votruba ‘859 in view of Bejjani ‘042, in view of Bell ‘859, and further in view of McGregor ‘060**

The Examiner rejected claims 21, 23, 30 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Votruba ‘859 in view of Bejjani ‘042, in view of Bell ‘859, and in further view of McGregor ‘060. In the Examiner’s Response to Arguments, the Examiner states:

The Examiner in the interest of speeding the prosecution of the case would like to point out that independent claim 15 does not include any language directed to “continuous motion” or “during sampling of images.”

Office Action dated July 10, 2008, pp 10.

Applicant respectfully traverses this rejection. Claims 21, 23, 30 and 32 depend directly or indirectly from claim 15, and include the limitations thereof. Claim 15 comprises “positioning a subject on the passive motion device as defined in claim 9.” Thus, the device that is used in claim 15 includes all of the elements of claim 9, which includes “a passive motion device for continuously moving a joint which comprises a horizontal platform base and a horizontal passive motion platform composed of . . . a horizontal laterally movable platform . . . in which the movement of the lateral movable platform is continuously driven during sampling of images . . .”

(Claim 9). Claims 21, 23, 30 and 32 depending directly or indirectly from claim 15, also include the elements of claim 9. As discussed above, claim 9 is not obvious over Votruba '859 in view of Bejjani '042. Also as discussed above, Bell '859 does not disclose a device providing continuous motion of a laterally movable platform during sampling of images and continuous motion of the joint during sampling of images. Nor does Bell '859 disclose an apparatus including a processing system which records time code and data from a passive motion platform. Furthermore, McGregor '060 does not disclose a device providing continuous motion of a laterally movable platform during sampling of images and continuous motion of the joint during sampling of images. Nor does McGregor '060 disclose an apparatus including a processing system which records time code and data from a passive motion platform.

### CONCLUSION

For the foregoing reasons, the Examiner is requested to allow claims 9-32 and advance the application to issuance.


### FEE AUTHORIZATION

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No.: 34655-703.831).

Respectfully submitted,

Date: October 10, 2008

By: \_\_\_\_\_

  
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